## Floxin, a resource for genetically engineering mouse ESCs.

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**Funding Grants:** High throughput modeling of human neurodegenerative diseases in embryonic stem cells

**Public Summary:**
We developed a novel method of genetically modifying mouse embryonic stem cells. This technology is being used for many purposes and by many labs.

**Scientific Abstract:**
We describe a method for the highly efficient and precise targeted modification of gene trap loci in mouse embryonic stem cells (ESCs). Through the Floxin method, gene trap mutations were reverted and new DNA sequences inserted using Cre recombinase and a shuttle vector, pFloxin. Floxin technology is applicable to the existing collection of 24,149 compatible gene trap cell lines, which should enable high-throughput modification of many genes in mouse ESCs.